

Notice of Allowability

Application No.

10/674,506

Examiner

Natalia Figueroa

Applicant(s)

SAKAI ET AL.

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to after final (08/29/2005).
2. ☒ The allowed claim(s) is/are 4-5, 7-8, 10, 13-16, and 18-20.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>07/15/2005</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

REASONS FOR ALLOWANCE

Allowable Subject Matter

1. Claims 4-5, 7-8, 10, 13-16, and 18-20 are allowed.
2. The following is an examiner's statement of reasons for allowance:

RE claims 4-5, the prior art of record, and in particular Sakai (JP 2001-266301) fails to teach or suggest a drive wherein the extracting unit has a generator which generates an ideal data signal; a subtracting unit which outputs a difference data signal according to difference between the ideal data signal and a data signal processed by the signal processing unit; and an adjusting unit including a gain adjusting circuit and a high-frequency cut-off filter, which process the difference data signal, the adjusting unit generating a signal corresponding to the component of the shift in the base line, and an adjusting unit including a gain adjusting circuit and an integrating circuit, which have high-frequency cut-off characteristics processing the difference data signal, the adjusting unit generating a signal corresponding to the component of the shift in the base line.

RE claim 10, the prior art of record, and in particular Sakai (JP 2001-266301) fails to teach or suggest a drive comprising a decoding unit to decode the recording data from the sample data: an extracting unit which extracts a component of a shift in a base line included in the data signal according to difference data between the sample data and an ideal sample data; and wherein the decoding unit includes a Viterbi detector which carries out ML type of data detection processing from the sample data, and which further comprises a generator which generates the ideal sample data from a data series detected by the Viterbi detector.

RE claim 13, the prior art of record, and in particular Sakai (JP 2001-266301) fails to teach or suggest a drive comprising an extracting unit which extracts a component of a shift in a base line included in the data signal according to difference data between the sample data and an ideal sample data; and wherein the extracting unit includes an integrating circuit and a gain adjusting circuit which have high-frequency cut-off characteristics processing the difference data signal, and which further comprises a parameter adjusting unit which adjusts a gain parameter set in the gain adjusting circuit according to a zone of a read object decided in the read operation.

RE claim 14-16, the prior art of record, and in particular Sakai (JP 2001-266301) fails to teach or suggest a drive comprising an extracting unit which extracts a component of a shift in a base line included in the data signal according to difference data between the sample data and an ideal sample data; and wherein the extracting unit includes a high-frequency cut-off filter which processes the difference data signal, and which further comprises a parameter adjusting unit which adjusts a cut-off parameter of the high-frequency cut-off filter according to a temperature value detected in the read operation, and wherein the extracting unit includes a high-frequency cut-off filter and a gain adjusting circuit which process the difference data signal, and which further comprises a parameter adjusting unit which adjusts a cut-off frequency parameter of the high-frequency cut-off filter and a gain parameter set in the gain adjusting circuit according to a temperature value detected in the read operation; and wherein the extracting unit includes an integrating circuit and a gain adjusting circuit which have the high-frequency cut-off characteristics processing the difference data signal, and which further comprises a parameter adjusting unit which adjusts a gain parameter set in the gain adjusting circuit according to a temperature value detected in the read operation.

RE claims 18-19, the prior art of record, and in particular Sakai (JP 2001-266301) fails to teach or suggest a drive comprising an extracting unit which extracts a component of a shift in a base line included in the data signal according to difference data between the sample data and an ideal sample data; and wherein the extracting unit includes a high-frequency cut-off filter and a gain adjusting circuit which process the difference data signal, and which further comprises a retry control unit which carries out retry of the read operation in the case that data decoded by the decoding unit is error data in the read operation; and a parameter adjusting unit which adjusts a cut-off frequency parameter of the high-frequency cut-off filter and a gain parameter set in the gain adjusting circuit in the retry operation, and wherein the extracting unit includes an integrating circuit and a gain adjusting circuit which have the high-frequency cut-off characteristics processing the difference data signal, and which further comprises a retry control unit which carries out retry of the read operation in the case that data decoded by the decoding unit is error data in the read operation; and a parameter adjusting unit which adjusts a cut-off frequency parameter of the high-frequency cut-off filter and a gain parameter set in the gain adjusting circuit in the retry operation.

RE claim 20, the prior art of record, and in particular Sakai (JP 2001-266301) fails to teach or suggest a signal processing unit which generates sample data obtained from the data signal outputted from the high-pass filter circuit by a PR type of waveform equalizing processing; an extracting unit which extracts a component of a shift in a base line included in the data signal according to difference data between the sample data and an ideal sample data, the extracting unit including an integrating circuit or a gain adjusting circuit which has a high-frequency cut-off filter or high-frequency cut-off characteristics and generating a signal

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corresponding to the component of the shift in the base line; a compensating unit to remove the component of the shift in the base line from the data signal to transmit the data signal to the signal processing unit; and a register to adjust a cut-off frequency parameter of the high-frequency cut-off filter and a gain parameter set in the gain adjusting circuit.


3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalia Figueroa whose telephone number is (571) 272-7554. The examiner can normally be reached on Monday - Thursday 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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